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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,770	01/23/2002	Shigeo Fujimori	1023-02	8726

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IP GROUP OF DLA PIPER US LLP
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1650 MARKET ST, SUITE 4900
PHILADELPHIA, PA 19103

EXAMINER

LIN, JAMES

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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10/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/055,770		FUJIMORI ET AL.	
	Examiner		Art Unit	
	Jimmy Lin		1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/10/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori et al. (JP 2000-113978) in view of Narabe et al. (U.S. Patent No. 5,978,094) and Schweitzer (U.S. Patent No. 3,352,282).

Fujimori discloses a method of making an organic electroluminescent device. A shadow mask is used to form at least an emitting layer or a metal electrode layer [0014]. A "division type" mask can be used wherein n independent shadow masks can be attached to a single frame, thereby providing for high precision patterning. The frame (i.e., the claimed base plate) has a plurality of openings on which the n deposition masks are arranged over. The mask is attached to a single substrate and the substrate is cut into n devices after patterning is finished [0016],[0046]-[0047].

Fujimori does not explicitly teach the step of using a camera to observe alignment marks formed on the integrated mask and the single substrate. In fact, Fujimori is silent as to any sort of alignment of the mask and the substrate, but some sort of alignment must necessarily occur in order to achieve high precision patterning. Narabe teaches that it is well known to use a CCD camera to pick up images of alignment marks on the mask surface and the substrate in order to

Art Unit: 1792

make a proper alignment. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used alignment marks and a CCD camera in the method of aligning the mask and the substrate of Fujimori with a reasonable expectation of success because Narabe teaches that such an alignment process is operable. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Fujimori does not explicitly teach detecting alignment marks of the frame and each of the deposition masks. Fujimori does teach that the alignment of the mask can be carried out individually [0016]. One of ordinary skill would have recognized that the alignment method of Narabe, as discussed above, would have been operable for aligning any two substrates, including a frame and a mask, with predictable results. Considering the need to align the individual masks with the frame, it would have been obvious to one of ordinary skill in the art at the time of invention to have used the alignment method of Narabe in the individual alignment of each mask of Fujimori with a reasonable expectation of success.

Fujimori does not explicitly teach that a plurality of engaging units are provided on the frame to engage and disengage each of the deposition masks. However, each mask must necessarily be attached to the frame somehow, and Fujimori teaches that a single mask can be replaced when it becomes damaged [0064]. Schweitzer teaches that it is well known in the vapor deposition art to have engaged a mask to a frame using pins (i.e., a plurality of engaging units) (col. 2, line 70-col. 3, line 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used the pins of Schweitzer to engage each mask to the frame of Fujimori with a reasonable expectation of success in order to have provided a disengageable engaging unit such that a single mask can be replaced when damaged.

Fujimori, Narabe, and Schweitzer do not explicitly teach (a-5) adjusting the relative position between the frame and each mask prior to engaging the integrated mask to the substrate or (a-6) engaging the masks to the frame after adjusting the relative positions. However, Fujimori teaches that all of these steps must be performed [0057]. The selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. See, for instance, *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have engaged

Art Unit: 1792

each mask to the frame after the alignment step and to have done so prior to engaging the integrated mask to the substrate with a reasonable expectation of success because one of ordinary skill in the art would have performed these steps in any order with predictable results.

Response to Arguments

4. Applicant's arguments, see pg. 3, filed 8/10/2007, with respect to the rejection(s) of claim(s) 11 and 14 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Fujimori '978, Narabe '094, and Schweitzer '282.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is 571-272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JL

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FRED A. PARKER
PRIMARY EXAMINER